

the summer months, we might easily become the weed-paradise of the world, and a convincing example of the results of unrestricted immigration!

THE FLORA OF THE TOWN OF SOUTHDOLD, LONG ISLAND AND GARDINER'S IELAND

BY STEWARD H. BURNHAM AND ROY A. LATHAM

(Continued from January-February TORREYA)

SPERMATOPHYTA

Picea rubens Sarg.—On Gid's Island, July 24, 1920 (Dr. C. S. Gager, N. Taylor & R. Latham). This island does not cover over three acres and is entirely surrounded by salt marshes. Two of the four trees are dead and the other two more than half dead: but there are four little seedlings ten to twenty inches high. Mr. Taylor remarks that these are evidently the last remains of what was once a spruce forest covering the whole island and that they are putting up a losing fight.

Pinus Strobus L.—A colony of nearly 300 trees in a swamp at Greenport; some of the trees actually growing where their roots are submerged a portion of the year. November 1918. Mr. Price, an elderly gentleman, who owns the swamp, says his father told him that they were a true native here. Some of the trees are probably 100 years old. There are eleven trees in dry woods at Southold which may be native. During August 1920 several hundred trees were seen in dry wood-lands at Bay View.

Sparganium androcladon (Engelm.) Morong—Wet place, Gardiner's Island. No. 3433. Sept. 20, 1920.

Potamogeton diversifolius Raf.—In a pond on Gardiner's Island. No. 3427.

**Agrostis altissima* (Walt.) Tuck.—Low marshy ground, rare at Mattituck.

A. perennans (Walt.) Tuck.—Dry soil throughout the town.

Aristida tuberculosa Nutt.—Rare along the railroad track in ashes at Laurel in the western part of the town. It is abundant in sandy soil a few miles further west but outside the town of Southold.

Calamagrostis cinnoides (Muhl.) Scribn.—Not common in low open ground at Mattituck.

Festuca Myuros L.—Wet sandy soil at Mattituck.

F. rubra L.—Orient in rather dry open woods near a salt marsh.

Miscanthus sinensis Anderss.—Occasionally found in waste places and old yards.

Panicularia obtusa (Muhl.) Ktze.—Mattituck in a swamp.

* The grasses were named by Mrs. Agnes Chase of the U. S. Department of Agriculture.

- Panicum meridionale* Ashe—In dry woods at Cutchogue; determined as *Panicum albemarlense* Ashe.
- P. tennesseense* Ashe—Southold in sandy soil.
- Carex atlantica* Bailey—Wet woods at Greenport and Orient; determined by Mr. G. P. Van Eseltine. No. 2285.
- C. festucacea* Schkr.—Wet open place in woods at Greenport (No. 3518) and at Southold (No. 3530).
- Carex laevicarinata* (Küken.) Mackenzie—Greenport in wet woods; determined by Mr. Van Eseltine. No. 2288.
- C. lanuginosa* Mx.—Greenport in a swamp and Orient in wet sandy woods; determined by Mr. Van Eseltine. No. 2339.
- C. laxiculmis* Schwein.—Frequent in dry open woods at Southold. No. 3524.
- C. Swanii* (Fernald) Mackenzie—Orient. No. 1101.
- Cyperus dentatus* Torr.—Wet sandy shores at Laurel. No. 1278 and 3447.
- Eleocharis acicularis* (L.) R. & S.—Salt marsh, Gardiner's Island (No. 3432) and sandy shore of a pond at Laurel (No. 3469).
- Eriophorum virginicum* L.—Laurel. No. 1287. Aug. 4, 1918.
- Rynchospora alba* (L.) Vahl—Laurel. No. 1291.
- Spirodela polyrhiza* (L.) Schleid.—East Marion (No. 3533) and Greenport. Locally common on woodland pools and ponds: at Greenport abundant'y associated with *Lemna minor* L.
- Juncus aristulatus* Mx.—Growing in large clumps in a brackish marsh at Orient. Rare. May 30, 1917. No. 1087.
- J. tenuis* Willd.—Dry hills, Gardiner's Island. July 14, 1918. No. 1260.
- Aletris farinosa* L.—Laurel. Sept. 10, 1917. No. 1077.
- Lilium philadelphicum* L.—Open ground between Southold and Great Pond at Peconic. A colony of about 50 plants.
- Gymnadeniopsis clavellata* (Mx.) Rydb.—Boggy woods at Mattituck. Aug. 28, 1920. No. 3460.
- Ibidium gracile* (Bigel.) House—Plants having a single stout root were found in dry open ground at Southold. Aug. 20, 1920. No. 3434.
- Hicoria ovata* (Mill.) Britton—Low woods, Gardiner's Island. No. 3422. Sept. 20, 1920.
- Myrica Gale* L.—Laurel. Aug. 4, 1918. No. 1288.
- Populus heterophylla* L.—Greenport in swampy woods. July 25, 1920. The first time Mr. Taylor has seen it wild on Long Island.
- Salix Bebbiana* Sarg.—Greenport in dry open places. Plants commonly two feet high or less were found on sandy dunes at Southold.
- S. cordata* Muhl.—In a swamp at Mattituck. June 18, 1920. No. 3521. The leaves little narrower than usual.
- S. discolor* Muhl.—The var. *eriocephala* (Mx.) Anders. In open places at Greenport (Wm. C. Ferguson); determined by Dr. P. A. Rydberg.
- Quercus ilicifolia* Wäng.—Rare near Laurel in light soil. No. 1268. Aug. 4, 1918. A single plant at Cutchogue; which is the easternmost record for it. The scrub oak becomes abundant about eight miles west of the Southold town limits.
- Q. prinoides* Willd.—Southold. Sept. 10, 1919. Rare in dry woods at Mattituck and Peconic.

- Ulmus fulva* Mx.—Wet woods at Greenport. July 20, 1920. No. 3459. Very rare in low woods; several trees in a bunch, which came from the stump of a large tree, cut many years ago.
- Morus rubra* L.—Was listed previously as probably introduced; but now found to be a native on Gardiner's Island.
- Boehmeria Drummondiana* Weddell—Laurel. Sept. 10, 1917. No. 1280.
- Persicaria opelousiana* (Riddell) Small—Swampy woods at Greenport. Aug. 28, 1920. No. 3386.
- P. orientalis* (L.) Spach.—Occasional in waste grounds and cultivated fields at Greenport and Orient.
- Polygonum atlanticum* (Robins.) Bickn.—Large bushy plants on sea beaches at Orient. Aug. 20, 1920. No. 3396.
- Rumex mexicanus* Meisn.—Orient. June 1916. Specimens previously reported as *Rumex pallidus* Bigel. should probably be referred here.
- Acnida cannabina* L.—Salt marshes at Laurel. Sept. 14, 1918. No. 1313. Specimens previously reported as *Acnida tuberculata* Moq. should probably be referred here.
- Chenopodium Botrys* L.—Southold (Mrs. F. R. Mitchell); determined by Mr. Taylor.
- C. rubrum* L.—Beach at Southold (Mrs. Mitchell); determined by Mr. Taylor.
- Allionia nyctaginea* Mx.—The subspecies *Allionia nyctaginea ovata* (Pursh) Morong. Moist waste ground at Laurel. Sept. 14, 1918. No. 1318.
- Cerastium arvense* L.—Fields at Southold (Mrs. Mitchell).
- Silene stellata* (L.) Ait.—Moist woods at Southold. Oct. 19, 1919. No. 4071.
- Magnolia tripetala* L.—A single tree twenty feet high with trunk diameter of five inches, at the edge of wet woods at Southold. The origin is uncertain, but introduced. Reported to Mr. Latham by Mrs. Mitchell. Oct. 16, 1919. No. 2148.
- Cardamine hirsuta* L.—Old lawn at Southold (Mrs. Mitchell).
- Draba caroliniana* Walt.—Sandy soil at western end of Long Beach at Orient. Rare. 23 May—early June, 1920.
- Sarracenia purpurea* L.—A single plant from a bog near Mattituck.
- Agrimonia Bicknellii* (Kearney) Rydb.—Rare in dry woods at Southold (Ferguson & Latham); determined by Dr. Rydberg.
- A. rostellata* Wallr.—Uncommon in dry woodlands at Southold. Oct. 10, 1919. No. 2120.
- Potentilla recta* L.—Dry roadsides at East Marion. Rare. June 20, 1920. No. 3531.
- Amelanchier oblongifolia* (T. & G.) Roem.—Not uncommon in dry woods at Cutchogue; determined by Dr. K. M. Wiegand. No. 3407.
- Crataegus Arnoldiana* Sarg.—Gardiner's Island, frequent at margins of woods in dry or wet soil; determined by Mr. W. W. Eggleston. A thick foliaged, beautiful, round-topped tree about twenty feet high.
- Crataegus intricata* Lange.—Gardiner's Island; determined by Mr. W. W. Eggleston.
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- Chamaecrista nictitans* (L.) Moench.—Bay View and Southold, locally common. Sept. 1920. No. 3403.
- Crotalaria sagittalis* L.—Common on a dry sandy ridge at Southold. Aug. 28, 1920. No. 3383.
- Lathyrus latifolius* L.—A rare escape in dry woods in the vicinity of an old house-site at Cutchogue. Aug. 21, 1920. No. 3399.
- Meibomia obtusa* (Muhl.) Vahl—Dry hillside, locally common at Southold. Aug. 29, 1920. No. 3395.
- M. rigida* (L.) Ktze.—Mattituck. Aug. 9, 1918. No. 1284.
- Polygala Nuttallii* T. & G.—Mattituck. Aug. 9, 1918. No. 1267.
- Tithymelus Helioscopia* (L.) Hill—Rare in a field at Peconic (Mrs. Smith). Dec. 10, 1920.
- T. Ipecacuanhae* (L.) Small—Sandy soil at Laurel. Aug. 4, 1918.
- Staphylea trifolia* L.—Rocky woods, Southold; determined by Mr. Taylor. Aug. 1, 1920. No. 3548.
- Hudsonia ericoides* L.—Common in one locality at Bay View. Aug. 21, 1920. No. 3400.
- Rotala ramosior* (L.) Koehne—A small colony in wet sand north of Great Pond, Southold. Oct. 19, 1919. No. 2126.
- Myriophyllum humile* (Raf.) Morong—Gardiner's Island in a pond. Sept. 20, 1920. No. 3426.
- Cicuta bulbifera* L.—Mattituck. Aug. 9, 1918. No. 1270.
- Cornus Amomum* Mill.—Uncommon in rich woods at East Marion (Miss Mabel R. Wiggins); verified by Mr. Taylor.
- Chamaedaphne calyculata* (L.) Moench—Laurel. Aug. 4, 1918. No. 1269.
- Eubotrys racemosa* (L.) Nutt.—Wet woods at Southold. Oct. 19, 1919. No. 4068.
- Gaultheria procumbens* L.—Mattituck.
- Neopieris mariana* (L.) Britton—Low place in woods at Southold. Sept. 14, 1919. No. 2263. Cutchogue in rich woods. Rare on Fleets Neck, Cutchogue but frequent on Nassau Point.
- Gaylussacia frondosa* (L.) T. & G.—Dry woods at Mattituck. Aug. 21, 1920. No. 3405.
- Asclepias exaltata* (L.) Muhl.—Rare in wet woods at Southold, south of Great Pond. July 30, 1920. No. 3565.
- Phlox subulata* L.—Escaped in old yards at Orient. Sept. 10, 1920. No. 3428.
- Lithospermum arvense* L.—Field at Southold (Mrs. Mitchell); determined at U. S. Dept. of Agriculture. Dry cultivated field at Bay View. May 1, 1919. No. 2158.
- Onosmodium virginianum* (L.) DC.—Dry or moist woods at Fleets Neck at Cutchogue. Sept. 14, 1919. No. 2246.
- Cunila origanoides* (L.) Britton—Very rare in oak woods on Fleets Neck at Cutchogue. Sept. 14, 1919. No. 2262.
- Koellia flexuosa* (Walt.) MacM.—Dry open woods on Gardiner's Island. Sept. 20, 1920. No. 3424.
- K. incana* (L.) Ktze.—Common in dry hilly woods at Southold. Oct. 19, 1919. No. 1909.

- K. mutica* (Mx.) Britton—Dry woods at Southold. Sept. 21, 1919. No. 4052.
- Leonurus Cardiaca* L.—Waste places at Bay View. Aug. 21, 1920. No. 3413.
- Lycopus rubellus* Moench—Greenport and Southold in low woods, frequent.
- Mentha piperita* L.—Roadside at Cutchogue. Oct. 14, 1919. No. 4045.
- Stachys hyssopifolia* Mx.—Gardiner's Island. July 14, 1918. No. 1258.
- Physalis heterophylla* Nees—Locally common as a weed in light cultivated soil at Cutchogue. Oct. 4, 1919. No. 4047.
- Pentstemon digitalis* (Sweet) Nutt.—Rare in dry ground at Southold. Aug. 28, 1920. No. 3384.
- Utricularia macrorhiza* LeConte—Laurel. Sept. 10, 1917. (*Utricularia vulgaris* of Am. Auth.)
- Galium Mollugo* L.—Orient. July 15, 1918. No. 125.
- G. verum* L.—Field at Southold (Mrs. Mitchell).
- Viburnum cassinoides* L.—Laurel. Sept. 14, 1918. No. 1316. Rich woods at Greenport. Oct. 30, 1920. No. 3451.
- Cucurbita Pepo* L.—Several specimens growing wild on sand dunes at Southold. Not an uncommon escape on farms and in waste places.
- Micrampelis lobata* (Mx.) Greene—Orient. Sept. 1, 1918. No. 1310.
- Sicyos angulatus* L.—Rare in waste places at Greenport.
- Hieracium aurantiacum* L.—Rich soil along old road in woods at Southold. Sept. 29, 1920. No. 3465.
- H. marianum* Willd.—Dry soil at Southold (Mrs. Mitchell).
- Lactuca canadensis* L.—The var. *integrifolia* (Bigel.) Gray in dry woods at Cutchogue (No. 3398), Aug. 15, 1920; and Orient (No. 1335), Sept. 30, 1918. This includes the previously reported *L. canadensis* v. *montana* Britton and *Lactuca sagittifolia* Ell.
- Lactuca Scariola* L.—Dry woods at Bay View. Sept. 5, 1920. No. 3436. Also the var. *integrata* Gren. & Godr. in sandy places at Orient. Sept. 15, 1920. No. 3418.
- Nabalus trifoliolatus* Cass., var. **obovatus** var. nov. Leaves purplish, membranous, obovate or oblanceolate, or deltoid, acute, on margined petioles, slightly denticulate or entire. Moist woods at Orient. Oct. 1919. No. 3375. Plants with deltoid leaves were found in dry ground at Bay View. Aug. 29, 1920. No. 3446.
- Aster laevis* L.—The var. *amplifolius* Porter is rare along wet margins of woods at Orient. Oct. 11, 1919. No. 2201.
- A. Lowricanus* Porter—Uncommon in rich woodlands at Greenport and Orient (Mr. Ferguson); verified at the N. Y. Bot. Garden.
- A. vimineus* Lam.—Dry or wet soil in fields at Gardiner's Island. Sept. 19, 1920. No. 3421.
- Centaurea maculosa* Lam.—Dry fields at Cutchogue. Oct. 19, 1919. No. 2111.
- C. nigra* L.—The var. *radiata* DC. in dry pastures at Cutchogue. Oct. 19, 1919. No. 2110.
- C. solstitialis* L.—Field at Southold (Mrs. Mitchell); determined at U. S. Dept. of Agriculture.
- Cirsium muticum* Mx.—Gardiner's Island in wet woods. Sept. 20, 1920. No. 3429.

- Lacinaria scariosa* (L.) Hill.—A single plant in dry woods at Fleets Neck, Cutchogue. Sept. 14, 1919. No. 2245.
- Solidago ulmifolia* Muhl.—Dry hillside at Southold. Sept. 1, 1920. No. 3394.

BOOK REVIEW

Hardy's *Geography of Plants**

The author of this comparatively short volume has dared much in attempting to write a brief account of the plant geography of the earth. In most works devoted to the subject authors are usually content to describe the different plant societies, such as forests, grasslands, and the like and mention a few well-known examples of each in the different countries. Schimper's monumental book on plant geography is built on this plan, but the author of the book under review boldly adopts the more interesting, if somewhat hazardous, method of taking the different continents one at a time and briefly describing the vegetation of each.

It is obviously impossible to give in a short review the scope of the book, for to do so would involve useless repetition of material from the book itself, and it were better for the prospective reader to go directly to the source. No other book in English comes within measurable distance of doing so well what it attempts to do. For here both the botanist and intelligent layman will find in plain English a readable account of the vegetation of the different parts of the earth.

So far as our own continent is concerned the treatment is all that one could expect in a book admittedly general in its scope. The different forest and grassland and desert regions of the continent are dealt with in some detail, but the chief value of the book is that it gives to those who will not or often cannot take the time to study more special works, a clear, readable, and judging by the account of our own vegetation, a reasonably accurate description of the vegetation of the earth. No specialist will go to such a book for his information, but the general botanical reader may be congratulated upon having in it the best short account of the subject that has appeared.

NORMAN TAYLOR

* Hardy, M. E. *The geography of plants*. Pp. 1-327. Oxford University Press, 1920. Price \$3.00.